

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 January 2004 (29.01.2004)

PCT

(10) International Publication Number
WO 2004/010250 A3

(51) International Patent Classification: **H04L 12/64**

(21) International Application Number:
PCT/US2003/022510

(22) International Filing Date: 18 July 2003 (18.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/396,814 18 July 2002 (18.07.2002) US

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): RUIZ FLORIACH, Carlos [US/US]; P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US). CHEN, Yingwei [US/US]; P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US). YE, Jong, Chul [US/US]; P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US). CHALLAPALI, Kiran [US/US]; P.O. BOX 3001, Briarcliff Manor, NY 10510-8001 (US).

(74) Common Representative: KONINKLIJKE PHILIPS ELECTRONICS N.V.; c/o BELK, Michael, E., P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

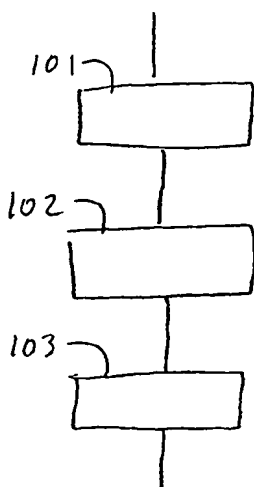
Published:

— with international search report

(88) Date of publication of the international search report:
19 May 2005

[Continued on next page]

(54) Title: ADAPTIVE DROPPING OF PRIORITIZED TRANSMISSION PACKETS



(57) Abstract: A series of information portions are provided to a transmitter, the information portions have critical times when they need to be available to a receiver. The transmitter estimates whether the information portions can be transmitted by the transmitter in time to be made available to the receiver before the critical time. Then the transmitter only transmits the information to the receiver if it is estimated that the information portions will be transmitted in time to be made available to the receiver before the critical time.

WO 2004/010250 A3

3.

•

1

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/22510

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L12/64

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 069 736 A (ERICSSON TELEFON AB L M) 17 January 2001 (2001-01-17)	1, 29
Y	page 3, paragraph 7 page 4, paragraph 14	2, 6
Y	US 5 130 985 A (KONDO KAZUHIRO ET AL) 14 July 1992 (1992-07-14) figure 20	2, 6
A	WO 00/33092 A (3COM CORP) 8 June 2000 (2000-06-08) page 3, line 17 - page 4, line 14	1-26, 29-33

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

26 November 2003

Date of mailing of the international search report

03/03/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Gregori, S

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/22510

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-26, 29-32

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-26,29-32

Method for estimating whether information portions can be transmitted by the transmitter on time.

2. claims: 27-28

Method for determining to transmit portions of media streams depending on the network conditions

3. claims: 33-35

Receiver comprising means for buffering information portions that arrive before critical time

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/22510

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1069736	A	17-01-2001	EP 1069736 A1	17-01-2001
			AU 763220 B2	17-07-2003
			AU 6690900 A	05-02-2001
			WO 0106714 A1	25-01-2001
			HU 0201961 A2	28-10-2002
			JP 2003505931 T	12-02-2003
US 5130985	A	14-07-1992	JP 2220523 A	03-09-1990
			JP 2143636 A	01-06-1990
			JP 2810069 B2	15-10-1998
			US 5406560 A	11-04-1995
WO 0033092	A	08-06-2000	AU 765910 B2	02-10-2003
			AU 2843600 A	19-06-2000
			CA 2318774 A1	08-06-2000
			EP 1060400 A1	20-12-2000
			JP 2002531964 T	24-09-2002
			WO 0033092 A1	08-06-2000